



OFFICE OF INSPECTOR GENERAL

Catalyst for Improving the Environment

Special Report

Congressional Request on Funding Needs for Non-Federal Superfund Sites

Report 2004-P-00001

January 7, 2004

Abbreviations

	Advice of Allowance
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
EPA	U.S. Environmental Protection Agency
	Fiscal Year
LTRA	Long-Term Response Action
	National Priorities List
NTCRA	Non-time Critical Removal Action
	Office of Inspector General
OU	Operable Unit
OSRTI	Office of Site Remediation and Technology Innovation
	Potentially Responsible Party
RA	Remedial Action
RPM	Remedial Project Manager



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

INSPECTOR GENERAL

The Honorable John D. Dingell
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20510

Dear Congressman Dingell:

This report responds to your May 23, 2003, request of the Environmental Protection Agency (EPA) Office of Inspector General (OIG) to provide information concerning funding needs for non-Federal Superfund sites. We are sending identical reports to the cosigners of the letter: Senator Boxer, Senator Jeffords, and Representative Solis. Your letter requested that we address the sufficiency of funding for non-Federal sites at all stages of the site cleanup process, including a more detailed review of a limited number of sites to determine if cleanup actions are being stretched out over a greater number of years because of inadequate funding.

The body of this report and enclosures 1 through 5 address funding for Fiscal Year (FY) 2003. The attachment to your letter posed a series of questions relating to our October 25, 2002, letter on FY 2002 funding needs for non-Federal Superfund sites. Our responses to those questions are in enclosures 6 through 11. Please note that given the volume of data requested, we are providing certain requested financial information via the enclosed disk.

In summary, during FY 2003, limited funding prevented EPA from beginning construction at all sites or providing additional funds needed to address sites in a manner believed necessary by regional officials, and caused projects to be segmented into phases and/or scaled back to accommodate available funding. Within this context, regional officials told us that they considered FY 2003 funding sufficient to address most sites. However, as discussed in the body of this report and in the enclosures, sufficient funds were not available to address a limited number of removal, pipeline, and remedial action sites. We estimate that the FY 2003 site-specific funding shortfall was \$174.9 million. Our estimate of shortfall only considers the regions' use of extramural resources (those resources that are used to fund work by the Army Corps of Engineers or contractors) applied to site-specific work. This report does not address intramural resources, or those obligations involving the labor and travel of EPA personnel that are obligated to specific Superfund sites.

Our October 25, 2002, letter on FY 2002 funding needs was limited to two phases of the cleanup process for Superfund sites - those sites requiring remedial action and those requiring long-term

response actions (LTRA). Your May 23, 2003, request letter asked us to inquire about all stages of the process. Accordingly, in addition to discussing funding for remedial action and LTRA sites, the enclosed information for FY 2003 addresses sites requiring (1) time critical removal actions, and (2) preconstruction activities (referred to as pipeline activities), such as remedial investigation/feasibility studies and remedial design work.

The Superfund Funding Process for FY 2003

The Office of Site Remediation and Technology Innovation (OSRTI) within the Office of Solid Waste and Emergency Response provides funds for EPA regions to conduct site cleanup activities using three Advices of Allowance (AOA):

Removal Funding

The Removal AOA funds emergency and time-critical removal actions at those sites where it is determined that the contaminants present an immediate threat to human health and the environment. The regions do not request funds from Headquarters on a site-by-site basis prior to the start of a fiscal year because the nature of this work requires an immediate response to unanticipated conditions. Instead, OSRTI provides funds to the regions based on historical allocations for the emergency removal program.

Pipeline Funding

The Pipeline AOA provides the regions funds for pre-construction activities, such as conducting remedial investigation/feasibility studies that characterize the nature of the contaminants at a site; selection of the remedy, which is documented in the Record of Decision; the design of the construction work to address the contaminants; and non-site-specific work, such as community involvement activities, records management, and State program development. The regions do not request funds on a site-specific basis from Headquarters for pipeline activities.

Prior to receiving funds, the regions input information on pipeline activities accomplished in the prior year and those planned for the current year into the Comprehensive Environmental Response, Compensation, and Liability Information System CERCLIS), the Superfund information system. During this process, the regions identify or “target” activities in certain categories they believe can be initiated with funding amounts from OSRTI. OSRTI then allocates funds to each region using a formula that considers historical allocations and pipeline activities accomplished in the prior year and work planned for the current year (i.e., the targeted activities). The regions then apply pipeline funds to targeted activities for sites or allocate an amount of money to contracts that will later be used to conduct pipeline activities. The latter process is known as “bulk funding.” Under bulk funding, site-specific obligations are not recorded in the Agency’s financial management system until the contractor is instructed to perform a pipeline activity for a particular site.

Remedial Funding

The Remedial AOA funds remedial construction, LTRA activities, non-time critical removals, and five-year reviews. LTRAs involve continuing treatment activities after construction is complete. Groundwater monitoring is an example of an LTRA. The regions annually request funds from Headquarters for remedial, non-time critical removal, and LTRAs on a site-specific basis. Regions input cost estimates into CERCLIS, and complete Project Evaluation forms for ongoing and new start projects with estimated costs of \$600,000 or more. The Project Evaluation forms enable the regions to provide a desired amount of funding, a minimum amount, and a description of the known hazards present at the site and the impacts of not providing funding. New construction starts are evaluated by the National Risk Based Priority Panel, a group of senior Headquarters and regional officials whose analysis is used by management to make funding decisions.

Once the regional information is available, OSRTI and the regions begin discussions about regional requests and eventually arrive at an initial allocation of funds for each site. Following a methodology from FY 2002, projects with estimated costs of less than \$5 million were generally funded at the amount requested by the regions, while the amounts allocated for higher cost sites represent the amounts mutually agreed to by Headquarters and the region. OSRTI issued its initial funding memorandum for FY 2003 on October 30, 2002. OSRTI officials indicated to us that the allocation of funds is a dynamic process that continues throughout the year. (We found this to be the case. For example, as shown on enclosures 3 and 4, regions reported not needing funds they initially requested from OSRTI based on various factors such as delays and being able to use funds from prior year appropriations. On the other hand, some sites required and received additional funds beyond the amounts estimated for FY 2003.)

In addition to funds provided by OSRTI, the regions obligate funds from two other sources. Funds are obligated from monies provided by States as matching funds for construction activities and from "Special Account" monies provided by Potentially Responsible Parties (PRPs) in accordance with Consent Decrees.

FY 2003 Emphasis on Ongoing Remedial Actions

For FY 2003, OSRTI transferred \$10 million of pipeline funds to remedial construction. In its October 30, 2002, memorandum discussing initial FY 2003 funding decisions, OSRTI stated that "Because of the limited resources available for construction, regions have the discretion to minimize new Fund-financed remedial investigation/feasibility study (RI/FS) and remedial design (RD) work." OSRTI also revised its deobligation policy to direct that 75 percent of deobligations become part of the national pool for reobligation.

As with FY 2002, OSRTI emphasized funding ongoing construction over new construction starts. For FY 2003, the National Risk Based Priority Panel considered 35 new start projects and determined that 9 should receive remedial funds. Of the remaining 26, 15 did not receive remedial funds, and 11 were, according to an OSRTI official, determined not ready for various reasons, including enforcement issues, changed site conditions, or design complications. Two of

the sites not receiving remedial funds - Elizabeth Mine in Region 1 and the Washington Recreation portion of Operable Unit #3 of the Bunker Hill site in Region 10 - did receive removal and pipeline funds, respectively.

Results of OIG Review

Regional officials told us that they had sufficient funding for the majority of sites for FY 2003. However, a limited number of removal, pipeline, and remedial action sites did not. When funding is not sufficient, construction at National Priority List (NPL) sites cannot begin; cleanups are performed in less than an optimal manner; and/or activities are stretched over longer periods of time. As a result, total project costs may increase and actions needed to fully address the human health and environmental risk posed by the contaminants are delayed. We estimate that the FY 2003 funding shortfall was \$174.9 million as summarized in the following table.

Category	Estimated FY 2003 Funding Shortfall (millions)	Enclosure
FY 2003 new start construction projects not funded	\$118.5	3
FY 2003 remedial projects not sufficiently funded	\$40.8	3
FY 2003 removal projects not sufficiently funded	\$9.4	1
FY 2003 pipeline projects not sufficiently funded	\$6.1	2
Total (difference due to rounding)	\$174.9	

In analyzing whether funding was sufficient for a given site, we began by asking regional Superfund officials/Remedial Project Managers (RPMs) whether they developed their estimate for FY 2003 without consideration of budget limitations (i.e., whether their estimate was based on the work that needed to be done from an engineering standpoint to address the site in an optimal way in FY 2003). In response to our questions about how site cleanup estimates are developed, some regional officials told us that expected budget limitations were a factor in developing their estimates for FY 2003. Some regional officials informed us that cleanup work is conducted differently than it was conducted when full funding was available. Limited funding forces work at certain sites to be phased and/or scaled back to accommodate available funding. We then asked regional officials whether the amount obligated was sufficient to proceed in an optimal way. Their responses are noted in enclosures 1 through 4 under the Sufficient Funding column.

We also inquired about 15 sites in greater detail. These sites are summarized in enclosure 5. For these sites, in addition to discussing them with regional Superfund officials, we obtained information such as the nature and extent of contamination and the status of cleanup from CERCLIS. OIG engineers assisted in our review of these sites and provided their opinion of whether EPA's funding decisions were appropriate given the unique nature of each site. We considered four of the 15 sites to be insufficiently funded for FY 2003.

Removal Funding

Financial information provided by OSRTI indicated that the regions obligated \$128.1 million from the FY 2003 and prior-year appropriations and an additional \$32.2 million from State Superfund contracts and amounts provided by PRPs in response to Consent Decrees for a total of \$160.3 million. Enclosure 1 lists those removal actions that were not fully funded in FY 2003.

Regions generally reported having sufficient funds to address emergency removals. However, several regions said that because of the amount of removal funds available to them, they made decisions to modify the type and extent of the removal, or partially fund sites. Examples follow

Region 1 officials said that friable asbestos in buildings on the Inter Royal site was not completely dismantled. Further work may be needed in the future as the buildings degenerate.

Region 3 reported having sufficient funds for removal actions but stated that it had changed its approach for the removal program because of limited funding over time. Region 3 now focuses on stabilization of sites (for example, erecting a fence and/or enclosing leaking drums to control spread of the contaminant) rather than on complete cleanups.

Region 5 officials reported that three sites requiring removal actions were not sufficiently funded - Kip Nelson Properties, Hog Hollow, and the Circle Smelting Site. The Circle Smelting site needs a time critical removal action to mitigate the threat to public health and the environment from lead contamination at an estimated cost of \$8.3 million. However, the Region was only able to obligate a total of \$1.6 million from appropriated funds and Special Accounts during FY 2003. Regional officials also told us that they reduced the extent of cleanup in some time-critical removal cases. For example, a site might be fenced and leaking drums placed in sealed containers instead of removing the contaminated soil.

Regions 6 and Region 7 reported that they were involved with the Columbia Shuttle disaster for approximately three months during FY 2003. Interviews with Regions 6 and 7 Removal Team staff indicated that if this had not been the case, they would have investigated other sites that probably would have needed removal actions. Region 6 officials told us that addressing other removal actions "... would have overwhelmed our removal Advice of Allowance."

Pipeline Funding

Financial information provided by OSRTI indicated that the regions obligated a total of \$107.6 million from current year appropriations, prior-year appropriations, State Superfund contracts, and amounts provided by PRPs in response to Consent Decrees to site-specific pipeline activities in FY 2003. As discussed below, the amounts obligated for a limited number of sites were not sufficient to conduct pipeline activities in the manner considered necessary by regional officials.

When Regions responded to our questions about the sufficiency of pipeline funding, they generally said the amounts obligated to specific sites were sufficient for targeted sites for FY 2003. However, some appeared to base their answers on whether they were able to make some progress with the funding received. For example, Region 2 considered funding sufficient if the funding allowed the Region to address the site in a manner the Region described as “minimally sufficient.” Region 4 officials considered funding sufficient because the work can be phased (divided into segments) to accommodate available funds spread over as many projects as possible. Region 7 officials told us that they instructed their RPMs to reduce the scope, phase, or delay planned activities where possible. As a result, for some sites the Region reduced the number of samples collected, limited the number of contaminants analyzed, and reduced the number of monitoring wells installed. Region 8 officials indicated that the Region cut all pipeline activities by 10 percent and incrementally funded cooperative agreements at 50 percent to free up funds for remedial investigation/feasibility studies and remedial design work for NPL sites. Thus, some regional officials considered funding sufficient within the constraints imposed by limited funding.

However, some pipeline activities were not sufficiently funded. Enclosure 2 is a list of non-Federal Superfund sites with funding shortfalls for pipeline activities during FY 2003 totaling \$6.1 million. Examples of funding concerns for pipeline sites follow:

Region 7 estimated \$2.5 million for the Omaha Mining site for FY 2003 but only obligated \$1 million. As a result, fewer residences were sampled for lead contamination.

The remedial investigation/feasibility study for the Annapolis Mine site in Region 7, estimated to cost \$400,000, was not started.

The RPM for the Libby, Montana site in Region 8 indicated that an additional \$740,000 was needed to take additional samples, analyze the samples taken, and conduct a study to determine a cost-effective method for quantifying the amount of asbestos in the soil.

Region 10 officials told us that pipeline operations were significantly cut for the remedial design for the Bunker Hill site and for various community involvement projects. For the Bunker Hill site, the Region obligated \$3.9 million versus its estimate of \$7.05 million for pipeline activities.

Remedial Funding

Enclosures 3 and 4 list non-Federal Superfund NPL sites for which FY 2003 remedial funding was requested or obligated. For FY 2003, OSRTI allocated \$224.4 million for site-specific remedial work. Considering amounts obligated from the FY 2003 appropriation, prior-years appropriations, State Superfund contracts, and amounts provided by PRPs in response to Consent Decrees. Financial information supplied by OSRTI indicated that the regions obligated a total of \$369.3 million during FY 2003.

To obtain the views of regional officials on the sufficiency of FY 2003 funding, we asked regional Superfund officials, including RPMs, whether the amount allocated to a site was sufficient to address that site in an optimal way without consideration of budget limitations. Generally speaking, the regions reported that there was sufficient funding in FY 2003 for ongoing remedial construction and LTRA projects. However, some Regions reported their decision about sufficiency of funds rested on whether funding was sufficient for site work to continue as planned, even if phased, without additional delays or work stoppage. Regional officials consider every LTRA site listed in enclosure 4 to be sufficiently funded for FY 2003.

Specific planned site work and funding was the result of a series of discussions between Headquarters and the regions. During these work planning discussions, a number of factors are considered, such as what sites are the highest priority for funding, what specific site work could be achieved with available funds in the fiscal year, and when the funding is needed. Regions also told us that because of limited funding, they sometimes “phase” and “scale back” work, do not start new remedial actions, and experience delays. Phasing is the division of a project into smaller work elements, which, according to OSRTI, allows more projects to get funded. However, several RPMs told us that phasing work is not as efficient as up-front funding for remedial actions. For example, as discussed below, at Region 1's Atlas Tack site, remedial action work was partitioned into three phases because there was not enough money to fully fund the site:

Phase I was the planned work for FY 2002 – if funding was available, the building on the site would have been demolished. The cost estimate was \$1.8 million, but funding was not available.

Phase II would have occurred during FY 2003, if Phase I was completed in FY 2002. Phase II involves cleaning up the site and preparing it for future use. The estimated cost for this phase is \$11.3 million (Region 1's estimate for FY 2003 was \$13.1 million for Phases I and II). However, the site received no funding in FY 2003.

Phase III is being designed at this time and will not be ready for funding until FY 2005. The current cost estimate is \$4.3 million.

A Region 1 official indicated that had sufficient funds been available in FY 2002 the work for Phases I and II could have been completed in 6 to 9 months.

Scaling back site work is the reduction of the amount and extent of the work. For example, the RPM for Region 2's Welsbach site stated that this site received the requested funding to excavate three study areas during FY 2003. However, when digging began at the primary study area, the contamination was determined to be substantially greater than anticipated. Since additional funding could not be obtained, work was scaled back at the primary work site and postponed at the two other areas. The RPM said that construction delays at this site could increase construction costs, increase the number of days required for road closures, lengthen the time required before eight displaced families can move back into their homes, and negatively affect the ability of a private swim club to stay in business. The Region reported that the delayed cleanup cannot be associated with an increased health risk at this time.

We asked regional officials how site estimates were developed. We were told that RPMs' requests are generally based on Independent Government Cost Estimates for contractor services and developed in collaboration with supervisors. Some regional officials told us that they did consider the limited budget when preparing site estimates. Region 10 told us that estimates were based on the Headquarters' predicted allocation of the money that would be available during FY 2003. Region 10 officials said that OSRTI informed them in advance that OSRTI would cut back any requested amounts over \$5 million for a particular site due to limited funds. Without that direction, Region 10 staff we interviewed stated that they would have requested more funds for the Bunker Hill site.

Our estimate of the remedial funding shortfall for FY 2003 is comprised of sites where construction could not begin and sites with ongoing construction where the need exceeded available funds. Following are the sites where construction activities were ready to begin but no funding was available because the sites were not ranked high enough by the National Priority Panel:

Region	State	Sites Not Funded in FY 2003	FY 2003 Site estimate (millions)
1 *	Massachusetts	Atlas Tack	\$13.1
1	New Hampshire	Mohawk Tannery	6
1 *	Vermont	Elizabeth Mine	8
1	New Hampshire	New Hampshire Plating	3.5
5*	Indiana	Continental Steel	39.1
5	Illinois	Jennison Wright	12.5
6	Louisiana	Marion Pressure Treating	9
6	New Mexico	North Railroad Ave. Plume	6.5
6	Texas	Hart Creosoting	9.9
6	Texas	Jasper Creosoting	6.2
10	Oregon	McCormick and Baxter	4.7
Total			\$118.5

*NOTE: site involves multiple operating units

In addition, some sites received less funding than the region requested or, in the view of regional officials, were not sufficiently funded. Some examples of sites not sufficiently funded are:

The Bunker Hill site in Region 10 – The Region estimated \$37.8 million and obligated \$15.0 million. The entire shortfall involves Operable Unit #3. The impact of reduced funds for the Bunker Hill site is associated with risk to human health,

particularly for young children and pregnant women, from lead contamination in a residential area. The future costs are expected to increase as work is delayed.

The Roebling Steel site in Region 2 – The Region requested \$5 million from OSRTI to demolish a building with asbestos during FY 2003. When OSRTI did not provide the funds, the Region looked to other sources and obligated a total of \$4.3 million from prior year deobligations and State Superfund contracts in September 2003. However, because funding was not available earlier, demolition could not begin in FY 2003.

The Welsbach site in Region 2 – Region 2 obligated a total of \$20.5 million but the RPM told us that the extent of contamination was greater than expected and work was scaled back at the primary work site and postponed at other areas. The RPM estimated an additional \$7 million were needed for FY 2003.

The Libby Mine site in Region 8 – Region 8 officials discussed the Libby, Montana site, a non-time critical removal, that poses a cancer health threat to residents in the towns of Libby and Troy. The region requested funds for operable units involving the town of Libby, the town of Troy, and the mine itself (Libby Mine). Funding was obtained for the Libby operable unit, but not for Troy or for the Libby Mine. Region 8 officials indicated that the Region could have used another \$3.7 million. The additional funds would have enabled the Region to analyze more samples to help characterize the site and to conduct a study to determine how clean the site should be.

The Upper Tenmile Creek site in Region 8 – Region 8 obligated \$3.8 million but the RPM indicated that an additional \$1.3 million was needed to clean up two additional areas and begin installation of an alternate water supply and treatment system.

The request letter also asked that we provide expenditure data by date and the unobligated site balances at the end of FY 2003. Enclosure 3 contains this information for the two sites in each region with the highest total obligations in FY 2003. Because of the volume of data involved, we are providing this information for other sites on the enclosed disk.

High Cost Sites

Enclosure 5 summarizes the work conducted for a limited number of sites with large estimates of overall costs. We judgmentally selected these sites based on information included in our October 25, 2002, letter on FY 2002 funding. Our selection was primarily based on sites with high overall project costs with comparatively low total obligations at the end of FY 2002. We focused on these sites to inquire in greater depth about how the region arrived at its estimate for FY 2003 and whether, in our opinion, the amount requested appeared appropriate to address these site in an optimal way in FY 2003. For these sites, in addition to discussing them with regional Superfund officials, we obtained information such as the nature and extent of contamination and the status of cleanup from EPA's Superfund information system, CERCLIS. OIG engineers assisted in our review of these sites and provided their opinions of whether EPA's funding decisions were appropriate given the unique nature of each site. In summary, we

identified funding concerns for 4 of the 15 sites reviewed – the Welsbach site in Region 2, the Upper Tenmile Creek and Libby sites in Region 8, and the Bunker Hill site in Region 10. These sites are discussed above and in enclosure 5.

In analyzing funding for remedial action sites, we noted that the demands of a limited number of high-cost, complex sites limit OSRTI's ability to fully fund all ongoing sites and new starts. For example, approximately half of the FY 2003 Remedial AOA funding for remedial action, non-time critical removals, and LTRAs went to 8 sites out of a total of 94 sites receiving funding. In addition, the funding demands for some sites will grow. For example, the RPM for the New Bedford site in Region 1 indicated that the site will require at least \$15 million per year beginning in FY 2004 but could need as much as \$80 million per year for optimal cleanup. The RPM for the Woolfolk Chemical site in Region 4 indicated that if funding of an estimated \$25 million is not available over the next 2 to 3 years there could be increased risk to human health and the environment from the continued migration of contaminants to the groundwater. Such high-cost sites, in addition to sites discussed above such as Continental Steel that did not receive any funding in FY 2003, will continue to pose significant funding challenges for EPA.

Scope and Methodology

We interviewed OSRTI and regional officials, including RPMs, about the FY 2003 process for funding Superfund sites and reviewed documentation relating to FY 2003 funding. During the interviews, we asked regional officials if they prepared cost estimates for sites without considering budget limitations and whether the funding available to them was sufficient to address sites in an optimal way for FY 2003. To calculate funding shortfalls, we verified with regional officials and RPMs those sites they had designated as insufficiently funded and confirmed with them our estimate of shortfall. We also asked regional officials whether not obligating funds until late in the fiscal year limited the amount of site cleanup activity.

For the financial information in enclosures 1 through 4, we relied on information supplied by OSRTI and regional Superfund officials. To obtain the desired financial information by site, special queries of EPA's Integrated Financial Management System were developed for us by OSRTI and financial management officials. Prior to giving the information to us, OSRTI corrected errors and modified certain data to meet our reporting needs. Given time constraints, we were not able to test whether the queries extracted the data in the manner desired. Further, because unique queries were developed, we were not able to rely on the transaction testing conducted during our audit of EPA's financial statements. However, prior to finalizing this letter, we asked regional officials to confirm the accuracy and completeness of the data provided for the information appearing in enclosures 1 through 4 which they did.

In addition to the above limitation, we did not test the controls governing certain activities, such as the work of the National Risk Based Priority Panel, or the process used to deobligate and reobligate funds. For these reasons, our work does not represent an audit conducted in accordance with *Government Auditing Standards*.

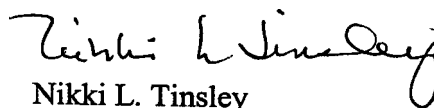
Because of OSRTI's emphasis on remedial action funding during FY 2003, enclosures 3 and 4 contain obligation information for all sites with FY 2003 extramural obligations. However, given the volume of data involved, enclosures 1 (removal) and 2 (pipeline) only list those sites with an identified funding shortfall for FY 2003. Information on other sites is included on the enclosed disk.

To answer the questions in the attachment to your request letter, we obtained information from OSRTI and regional officials in writing and through interviews. This information is provided in enclosures 6 through 11.

As I'm sure you are aware, the Conference Committee on the FY 2004 Omnibus Appropriations Act directed the OIG to conduct an evaluation of how to increase cleanups and reduce administrative costs within the Superfund program. This will provide yet another opportunity for the OIG to provide the Congress with additional information on the Superfund program. We plan to begin this work early in 2004.

If you or your staff have any questions, feel free to call me on (202) 566-0847, or Eileen McMahon, Assistant Inspector General for Congressional and Public Liaison, on (202) 566-2546.

Sincerely,


Nikki L. Tinsley

Enclosures